

Repairing the Pentagon

Story and Photos by SSG Alberto Betancourt



Salvaged limestone blocks await cleaning.



THE towering 72-foot crane looked like a huge dinosaur as it slammed its jaw into a portion of the Pentagon's demolished "Wedge One" and consumed more than 5,000 pounds of concrete and debris in one "bite."

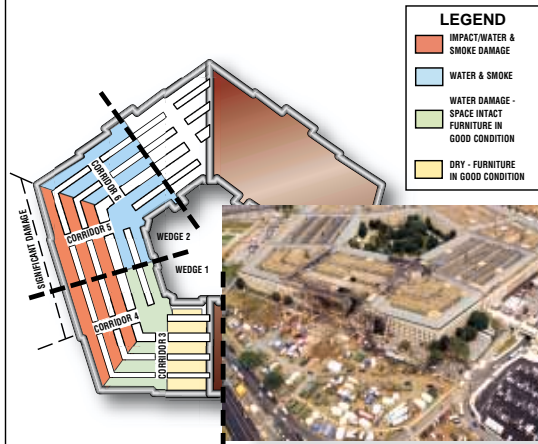
"Aggressive renovation" is Lee Evey's response to the Sept. 11 attack on America's defense hub. The Pentagon's renovation manager plans to have the building's personnel gazing out windows of newly rebuilt offices by the first anniversary of the terrorist attack, he said.

"This building is still standing, and what was destroyed is coming back fast," he said.

Evey said it's unlikely the reconstruction will be completed by the anniversary date, but he wants workers to be able to look out their windows and watch the dedication of a permanent memorial to the Pentagon victims

(Left) Workers use water to cool the still-smoldering wreckage.

AREAS WHERE IMMEDIATE WORK IS BEING PERFORMED



Source: Pentagon Renovation Program

"We have to go to the same limestone quarry in Indiana to get stone to match what was used in the initial construction phase in 1941."

appropriated \$1.2 billion toward just such a renovation, only 20 percent of which — including Wedge One — had been completed by the time of the attack.

The Pentagon was built of reinforced concrete, Eaton said, to save steel for battleships during WWII. Part of the renovation involved adding structural steel to reinforce the outer walls. That, in part, helped save a lot of lives during the tragedy.

"The structural steel reinforcements kept portions of the building's C, D and E corridors from collapsing for almost 35 minutes after the plane hit," he said. "Those crucial minutes allowed many people to escape."

Evey said the tragedy could have been much worse.

"We believe that the steel reinforcement dramatically slowed the plane as it entered the building and prevented it from penetrating further," he said.

Today, the construction team that has resumed renovation of the Pentagon at an accelerated pace must still adhere to numerous requirements intended to ensure that the building's original design and composition are not compromised.

"We have to go to the same limestone quarry in Indiana to get stone to match what was used in the initial construction phase in 1941," said Eaton.

He said pieces of limestone that have been removed from the building

scheduled for Sept. 11 of this year.

Since the attack, construction teams have been working around the clock to mend the historic edifice, Evey said.

"The building actually looks worse now than it did immediately after the airliner crashed into it," said Brett Eaton, a spokesman for the Pentagon Renovation Team.

Eaton said the team is taking down about 400,000 of the building's 6.5 million square feet — an amount that pales in comparison to the structure's overall size.

Designated a National Historical Landmark in 1992, the sprawling five-sided building hadn't undergone a major renovation since it was completed in 1943. In 1994 Congress

(Left) Construction crews have been working around the clock since Sept. 11 to restore the historic building.



America's Lasting Monument

Story by SSG Alberto Betancourt

are being cleaned and saved so they can be donated to museums, service academies and the different military branches for use in memorials or historical archiving.

The team must also consider security issues.

Eaton said security enhancement for the Pentagon initially included blast-proof windows. However, the windows were designed to protect people from an external blast, not from an internal one.

"The windows weigh 1,600 pounds each," said Eaton. "Some people who tried to get out the windows couldn't, so they had to go further into the building and out a permanent exit. As we redesign, emergency-exit-operable windows will be part of our agenda."

He said several contractors make up the Pentagon renovation team, including KCE, a structural contractor that engineered repairs at the Alfred P. Murrah Federal Building in Oklahoma City.

"The boss has challenged the renovation team to meet the 2002 anniversary deadline," said Eaton. One way he's doing this is by sharing the numerous "thank you" letters the team received from people who were inside the Pentagon during the attack.

One very emotional letter came from a Pentagon employee, who said: "I turned 53 today. I wouldn't have been able to celebrate my birthday if you hadn't put in the blast-resistant windows. Thank you so much."

"We are all committed to this project. We want everyone back in their offices by Sept. 11," said Eaton, as a line of construction workers passed a "United We Stand" banner draped over a fence that formed a perimeter around the site.

As work on Wedge One continues, the construction team continues renovating wedges two through five. They're targeted for completion in 2012. □

SIXTY-one years before the Sept. 11 terrorist attack on the Pentagon, engineers broke ground in Arlington County, Va., paving the way for construction of the world's largest office building.

Carl Benckert was 14 years old in 1941. The retired government employee, who now lives in Fort Pierce, Fla., lived near the construction site near the banks of the Potomac River. He vividly remembers the piercing sounds of heavy equipment grinding and pounding the earth.

"You could tell there was something fascinating going on," he said. "There were so many cement-mixers and other trucks, and just so much concrete."

Back then, Benckert lived about a mile from where pile-drivers pounded columns of reinforced concrete into the ground.

"It was a night-and-day operation," he said. "At night, the construction crews' lights brightened up the sky so much, the site could be seen from miles away."

To consolidate and centralize joint-service missions under the War Department, forerunner of today's Department of Defense, President Franklin D. Roosevelt signed a bill in 1941 appropriating funds for the construction of a sprawling building that would accommodate thousands of people. Today, that building — the Pentagon — is a National Historical Landmark.

Despite the Japanese attack on Pearl Harbor, which drew our country into World War II, workers on the home front finished the five-sided building in 16 months at a cost of \$83 million. Besides having five sides, it has five floors and is surrounded by five roads.

Brett Eaton, public information specialist for the Pentagon Renovation Program, said the building covers 29 acres and has 17.5 miles of corridors.

"The structure is twice as large as the merchandise mart in Chicago and has three times the floor space of the Empire State Building in New York," he said. It rests on 41,492 concrete piles that, if laid horizontally, would stretch 200 miles.



Employees' cars pack the south parking area of the newly completed Pentagon (note the loading platform in the background).



By July of 1942 construction work on the building's northwest side was well underway.

The magnificent building is a gigantic and lasting monument to the American spirit of unity during peace and war.

SGT Alex Desir, a member of the 3rd U.S. Infantry's Company C at Fort Myer, Va., was a Pentagon tour guide for 11 months before the terrorist attack. Besides escorting visitors to the building's more interesting sites, like the Hall of Heroes and the Women's Corridor, Desir shared historical "tidbits" with his guests.

"A lot of people don't know that the hot-dog stand in our center courtyard was called 'Café Ground Zero' during the Cold War," he said. "I also like to tell people that the structure was



This aerial view depicts the first two Pentagon "spokes" under construction.

predominately made from limestone, and not marble, because most of the world's marble comes from Italy, and we didn't want to fund their war efforts."

The magnificent building is a gigantic and lasting monument to the

American spirit of unity during peace and war.

"We never realized how big it was until it was completed," Benckert said. "This was intended to be something that was going to be there for eternity. It is just awesome." □